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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,545	01/31/2001	Leslie M. Brooks	2479.1078-000	3228

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EXAMINER

PHILLIPS, HASSAN A

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/774,545

Applicant(s)

BROOKS ET AL.

Examiner

Hassan Phillips

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to amendments and remarks filed on March 14, 2005.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 14, 2005 has been entered.

Response to Arguments

3. Applicant's arguments filed March 14, 2005, have been fully considered but they are not persuasive. Applicant argued that:

- a) Examiner used hindsight reasoning to combine Gillon and Christensen.
- b) Neither Gillon nor Christensen, alone or in combination, teach, suggest, or provide motivation for "selectively controlling the state of a compression algorithm based on a protocol-specific header and control information of a protocol data unit to determine compressibility".

Examiner respectfully disagrees.

4. Regarding item a), In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

5. Regarding item b), Examiner submits that Christensen was only used to show that "selectively controlling a state of a compression algorithm" was well known in the art at the time of the present invention. Moreover, although Gillon does not expressly teach such a feature, one of ordinary skill in the art at the time of the present invention would realize that such a feature is implicit in the teachings of Gillon. As indicated in the previous action, Gillon teaches a compression unit that examines a data packet 400, and using the header 402 of the data packet, determining whether data 404 can be compressed. After determining that the data can be compressed, immediately compressing the data, (col. 5, lines 48-56). This decision making process of the compression unit would be interpreted by one of ordinary skill in the art as the process for selecting a state of data link compression, since, as indicated by Gillon, data is only selected to enter a state of compression if it is determined that the data can be compressed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillon in view of Christensen.

8. In considering claims 1, 13, 25, and 28, Gillon discloses a computer-readable medium, an apparatus, and a method for compressing a data stream comprising: filtering protocol-specific header and control information of a protocol data unit (PDU) to determine compressibility of the contents of the PDU, (col. 5, lines 48-50); based on the result of filtering, selecting a state of data link compression for the PDU to optimize compression efficiency, (col. 5, lines 52-56); and associating the selected state of data link compression with the protocol data unit to enable a compression process adapted to compress protocol data units in an adaptive manner, (col. 2, lines 21-31).

Although the teachings of Gillon show substantial features of the claimed invention, they fail to expressly show: disabling a compression process.

Nevertheless, it was well known in the art at the time of the present invention that having the ability to enable a compression process to optimize compression efficiency

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also suggests having the ability to disable a compression process to optimize compression efficiency. This is better exemplified in the teachings of Christensen. More specifically, Christen teaches: enabling or disabling a compression process adapted to compress protocol data units in an adaptive manner for optimizing compression efficiency, (col. 2, lines 1-18).

Thus, if not implicit in the teachings of Gillon, given the teachings of Christensen it would have been obvious to one of ordinary skill in the art to modify the teachings of Gillon to show disabling the compression process. This would have clearly demonstrated advantages for efficiently utilizing a compression algorithm only when needed, Christensen, col. 2, lines 12-18.

9. In considering claims 2, 14, and 26, the method of Gillon teaches compressing the contents of the PDU as a function of the state of data link compression. See col. 5, lines 52-56.

10. In considering claims 3 and 15, although the disclosed method of Gillon shows substantial features of the claimed invention, it fails to expressly disclose: indicating whether the contents of the PDU have been compressed or not.

Nevertheless, in a similar field of endeavor Christensen teaches a method for adaptive compression comprising: applying an indication in a compressed PDU to indicate whether the contents of the PDU have been compressed, (col. 5, lines 54-61).

Given the teachings of Christensen, it would have been obvious to one of ordinary skill in the art to modify the teachings of Gillon to also teach a means of indicating whether contents of a compressed PDU have been compressed by applying an indication in, or with, the compressed PDU. This would have provided an efficient means for the device assigned to decompress the PDU to determine whether decompression is necessary or not, Christensen, col. 5, lines 49-53.

11. In considering claims 4, 16, and 27, Gillon further discloses decompressing the compressed contents of the PDU, col. 5, lines 13-17.

12. In considering claims 5 and 17, the combined methods taught by Gillon and Christensen with respect to claims 3, 4, 15, and 16, provide a means for decompressing the compressed contents of a PDU in a pre-negotiated manner based on the indication of whether the contents of the PDU have been compressed.

13. In considering claims 6 and 18, it is implicit in the method taught by Gillon that a table is accessed having entries with specific media types deemed compression limited. See col. 5, lines 39-50.

14. In considering claims 7 and 19, it is also implicit in the method taught by Gillon that filtering includes associating individual PDU's to specific media types. See col. 5, lines 48-56.

15. In considering claims 8 and 20, the method of Gillon teaches determining if a given PDU is associated with a previously filtered PDU, and, if so, assigning the same state of data link compression for the given PDU as for the previously filtered PDU. See col. 5, lines 48-57.

16. In considering claims 9 and 21, it is implicit in the method taught by Gillon that a table is accessed including information of previously filtered PDU's, when determining if a given PDU is associated with a previously filtered PDU. See col. 5, lines 48-56.

17. In considering claims 10 and 22, it is also implicit in the method taught by Gillon that data link compression is disabled if the compressibility of the contents of the PDU is determined to be low. See col. 5, lines 48-56.

18. In considering claims 11 and 23, the method of Gillon teaches enabling data link compression if the compressibility of the contents of the PDU is determined to be high. See col. 5, lines 48-56.

19. In considering claims 12 and 24, the method of Gillon further teaches utilizing tables initialized with patterns expected to be contained in the content of the PDU, and used by the data link compression. See col. 5, lines 33-38.

20. In considering claim 29, Gillon discloses a method for optimizing compression efficiency comprising: filtering protocol-specific header and control information of a protocol data unit (PDU) to determine compressibility of the contents of the PDU, (col. 5, lines 48-50); based on the result of filtering, selecting a state of data link compression for the PDU to optimize compression efficiency, (col. 5, lines 52-56).

Although the teachings of Gillon show substantial features of the claimed invention, they fail to show: selectively controlling a state of a compression algorithm.

Nevertheless, Christensen teaches: without changes to a subordinate protocol layer, or changes to higher protocol layers that the subordinate protocol layer carries, selectively controlling the state of a compression algorithm for compressing data transported by PDU'S across a connection in a data communication network to optimize the compression efficiency, (col. 2, lines 1-18).

Thus, given the teachings of Christensen, it would have been obvious to one of ordinary skill in the art to modify the teachings of Gillon to show, without changes to a subordinate protocol layer or changes to the higher protocol layers it carries, selectively controlling the state of a compression algorithm based on a protocol-specific header and control information of a protocol data unit to determine compressibility for compressing data transported by protocol data units across a connection in the data communication network to optimize the compression efficiency. This would have advantageously provided an efficient means for using a compression algorithm only when needed, Christensen, col. 2, lines 12-18.

21. In considering claim 30, the method of Christensen discloses selectively controlling the state of the compression algorithm by enabling or disabling the compression algorithm. See col. 2, lines 1-12. One of ordinary skill in the art would modify Gillon with Christensen for the same reasons indicated in consideration of claim 29.

22. In considering claim 31, Gillon teaches controlling the state of compression by analyzing protocol-specific header and control information of the PDU'S of the higher protocol layers. See col. 5, lines 39-50.

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (571) 272-3940. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP/
5/13/05


ZARNI MAUNG
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